

Patent claims

1. Method for producing a rim hole through a pile of at least two plate-shaped work pieces in which by means of a rim hole punch, essentially driven vertically through the pile, material of the one plate-shaped work piece facing the rim hole punch is pushed through an opening of the other plate-shaped work piece whereby the inside contours of the opening essentially correspond to the outer contours of the rim hole, **characterised in that** in a single feed movement of the rim hole punch (7) both the rim hole (9) as well as the opening (21) in the other, rear plate-shaped work piece (2) seen from the direction of feed, are formed by having the plate-shaped work piece (2) pointing away from the rim hole punch supported by a matrix (8) such that when the rim hole punch is driven through the pile (1, 2) a piece of material (10) is broken out of the rear plate-shaped work piece (2) and whose outer contours essentially correspond to the outer contours of the rim hole.
2. Method for producing a rim hole according to Claim 1, **characterised in that** at the end of the feed movement of the rim hole punch (7), the rim hole (9) protrudes over the surface facing matrix (8) of the rear plate-shaped work piece (2).
3. Method for producing a riveted joint according to Claim 2, **characterised in that** the rim hole (7) is preferably flanged by means of a flange punch (12) fed from a side of the work pieces opposite the rim hole punch, whereby, after flanging, the outer surface (14) of the rim hole rests, at least in some sections, on the outer surface (15) of the rear work piece.
4. Method for producing a rim hole according to one of the above cited claims, **characterised in that** prior to formation of the rim hole a penetration opening (3, 3') is created through the pile (1, 2) and whose cross-section surface corresponds at most to the cross-section surface of the opening (50, 51) of the rim hole.

5. Method for producing a rim hole according to one of the above cited claims, **characterised in that** the penetration opening (3, 3') is created through the pile (1, 2) with an essentially constant cross-section.
6. Method for producing a rim hole according to one of the above cited claims, **characterised in that** the penetration opening (3, 3') is created with the feed movement of the rim hole punch by means of the rim hole punch (7) and by which the rim hole (9) and the piece of material (10) are formed.